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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/837,449	04/17/2001	Hani Elgebaly	42390P11413	2387

8791 7590 08/13/2004	EXAMINER	
BLAKELY SOKOLOFF TAYLOR & ZAFMAN	STRANGE, AARON N	
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SEVENTH FLOOR	ART UNIT	PAPER NUMBER
LOS ANGELES, CA 90025-1030	2153	

DATE MAILED: 08/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/837,449	ELGEBALY ET AL.
	Examiner	Art Unit
	Aaron Strange	2153

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE **3** MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 April 2003*.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 April 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
   application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date *04212003*.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1.   Claims 1,23,27 and 30 are objected to because of the following

informalities:

2.   With regard to claim 1, there appears to be a typographical error "identify

the" in line 11. The Office recommends that the claim be amended to recite

"identify if the".

3.   With regard to claims 23,27, and 30, there appears to by a typographical

error "registering the first endpoint in accord with the first registration". The Office

recommends that the claim be amended to recite "registering the second

endpoint in accord with the first session registration". For the purpose of applying

art, it has been interpreted as the second endpoint being registered in

accordance with the first session registration.

4.   Appropriate correction is required.

Claim Rejections - 35 USC § 112

5.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

6.   Claims 1-7, 10, 11-17,20,23,27 and 30 are rejected under 35 U.S.C. 112,

second paragraph, as being indefinite for failing to particularly point out and

distinctly claim the subject matter which applicant regards as the invention.

7.   Several of the claims contain limitations lacking antecedent basis. A listing

of several locations of such problems appears below, but it should not be

interpreted as an exhaustive list. The claims must be amended to provide

sufficient antecedent basis for the limitations set forth below as well as any other

limitations lacking antecedent basis of which Applicant may become aware.

8.   Claim 1 recites the limitation "the non-routable network address" in line 6.

There is insufficient antecedent basis for this limitation in the claim.

9.   Claim 4 recites the limitation "the second network address" in line 4.

There is insufficient antecedent basis for this limitation in the claim.

10.   Claim 4 recites the limitation "the entry" in line 8. There is insufficient

antecedent basis for this limitation in the claim.

11.   Claim 5 recites the limitation "said protocol data" in lines 4 and 6. There is

insufficient antecedent basis for this limitation in the claim.

12.   Claim 5 recites the limitation "the non-routable network address" in lines 6-

7. There is insufficient antecedent basis for this limitation in the claim.

13.   Claim 5 recites the limitation "the routable address" in lines 8-9. There is

insufficient antecedent basis for this limitation in the claim.

14.   Claim 6 recites the limitation "the non-routable address" in line 5. There is

insufficient antecedent basis for this limitation in the claim.

15.   Claim 6 recites the limitation "the routable address" in line 6-7. There is

insufficient antecedent basis for this limitation in the claim.

16.   Claim 7 recites the limitation "the acknowledgment" in line 2. There is

insufficient antecedent basis for this limitation in the claim.

17.   Claim 7 recites the limitation "the non-routable address" in lines 3-4.

There is insufficient antecedent basis for this limitation in the claim.

18.   With regard to claims 8-10, it is unclear where the steps of the method are performed. It appears that the steps in claims 8 and 9 are being performed by the registration server, while the steps in claim 10 are being performed in the first and second endpoints.

19.   With further regard to claim 10, the last two steps are unclear. Page 12, Lines 15-21 of the present application contradicts what appears to be claimed in claim 10, and the language used is unclear.

20.   Claim 10 recites the limitation "the second network address" in line 5. There is insufficient antecedent basis for this limitation in the claim.

21.   With regard to claims 23, 27, and 30, there are several instances in which "first" and "second" appear to have been inadvertently interchanged, making the claim unclear. Based upon the specification, the claim has been interpreted to mean that the registration server receives session registrations from both the first and second endpoints. The first endpoint, behind a NAT, is registered with respect to the routable address associated with the NAT. The second endpoint, which is not located behind a NAT, is registered with respect to its routable address.

22.   Claims 11, 14, 15, 16,17 and 20 are also rejected for the reasons cited for claims 1,4,5,6,7 and 10, respectively.

23.   All claims not individually rejected are rejected by virtue of their dependency from the above claims.

Claim Rejections - 35 USC § 102

24.   The following is a quotation of the appropriate paragraphs of 35

U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

25.   Claims 1-3,5,8,9,11-13,15,18,19, and 21-30 are rejected under 35

U.S.C. 102(e) as being anticipated by Goldberg et al. (WO 02/03217).

26.   With regard to claim 1, Goldberg et al. (Goldberg, hereafter) discloses a

communication protocol for initiating a communication session through a network

translation device which translates internal network traffic having an internal

addresses and ports into external traffic having an apparent external origin

address and port, the protocol comprising: preparing a session setup (IP and

port) (Page 6, Lines 21-23) for a session from a first machine (Client A) having

the non-routable network address to a second machine (application server), the

session setup indicating a non-routable address (internal IP address) to which to

send a session acknowledgement; and sending the session setup to the second

machine through the network translation device, wherein said network translation

device does not translate the session setup (Session info is sent as data, so no

translation occurs); wherein the second machine is configured to inspect the

session setup and identify the session setup includes the non-routable address
(Page 7, Lines 4-9).

27.   With regard to claim 2, Goldberg further discloses including a first port in
said session setup for communicating with a communication endpoint, wherein
translation by the network translation device results in the session setup having
an apparent origin and a second port (IP/port in the header) different from the
non-routable address and the first port in said session setup (IP/Port in data),
and wherein the second machine is configured to inspect said protocol data and
identify the non-routable address (Page 7, Lines 4-9).

28.   With regard to claim 3, Goldberg further discloses that said endpoint is a
selected one of: the second machine, and a registration server for registering
communication endpoints (Application server registers clients to control
connections) (Page 7, Lines 10-15).

29.   With regard to claim 5, Goldberg further discloses that the second
machine
is a registration server (application server) for registering machine aliases with
network addresses (coordinates the link establishment between the devices)
(Page 6, Lines 15-17), the protocol further comprising the registration server:
receiving the session setup, said session setup comprising said protocol data
including an alias for the first machine, examining said protocol data so as to
identify whether it comprises the non-routable network address (Page 6, Liens
21-23); and if so, registering the first machine with respect to the alias and the
routable address.

While Goldberg fails to specifically disclose the embedded alias as being part of the protocol data or registering the endpoint, these limitations are inherent. Since the other information in the registration (IP address and port) is not uniquely identifying, an alias must be provided in order to form as association between the external address and the specific computer. Two machines behind different NAT devices could share an identical internal IP address and port, making the registration process invalid without a unique identifier, since Goldberg discloses that the application server can handle communication between two different NAT networks.

While the specific step of registering the first endpoint with the apparent origin address, embedded port, and embedded alias is not disclosed by Goldberg, the application server notifies the second client of the external address and port required to contact client A behind the NAT (Page 9, Lines 26-31). The application server would not know this information unless it has stored it when determining that client A was behind a NAT. Therefore, this limitation is present in the system disclosed by Goldberg despite the lack of a specific reference to it.

30.   With regard to claim 8, Goldberg discloses a method for communicating between a first endpoint (Client A) behind a network address translator (NAT) and a second endpoint (application server), comprising: receiving a first registration for the first endpoint, said registration comprising an embedded address (IP address) and embedded port for the first endpoint (Page 6, Lines 21-23), wherein said registration has an apparent origin address of the NAT (external address) (Page 8, Lines 25-27); determining the embedded network

address is a non-routable address (Different from the external address) (Page 7, Lines 4-9).

While Goldberg fails to specifically disclose the embedded alias as being part of the registration or registering the endpoint, these limitations are inherent. Since the other information in the registration (IP address and port) is not uniquely identifying, an alias must be provided in order to form as association between the external address and the specific computer. Two machines behind different NAT devices could share an identical internal IP address and port, making the registration process invalid without a unique identifier, since Goldberg discloses that the application server can handle communication between two different NAT networks.

While the specific step of registering the first endpoint with the apparent origin address, embedded port, and embedded alias is not disclosed by Goldberg, the application server notifies the second client of the external address and port required to contact client A behind the NAT (Page 9, Lines 26-31). The application server would not know this information unless it has stored it when determining that client A was behind a NAT. Therefore, this limitation is present in the system disclosed by Goldberg despite the lack of a specific reference to it.

31.   With regard to claim 9, Goldberg further discloses receiving from the second endpoint a resolution request for the alias (INFO/NAT message) (Page 20, Lines 20-21); replying to said request with at least the apparent origin address (reINVITE message); receiving a session setup from the second

endpoint (response w/SDP); and forwarding the session setup to the first

endpoint at the apparent origin address (Page 20, Lines 20-30).

32.   With regard to claim 21, Goldberg discloses a method for a first endpoint

internal to a network translation device to set up a communication session with a

second endpoint external to the network translation device, the method

comprising: contacting a registration server to resolve an alias for the second

endpoint (INVITE/SDP is sent to app server); receiving a first session registration

from the registration server (INFO/NAT message is received from app server),

the first session registration comprising a network address for the second

endpoint that is routable, and a content port to which content should be sent to

for the second endpoint (Page 20, Lines 13-15); and priming the network

translation device, by sending at least one network packet to the second

endpoint at the routable address on the content port, before completing setting

up the communication session with the second endpoint (Send RTP/NAT

message) (Page 20, Lines 2-30 and Fig 12).

33.   With regard to claim 22, Goldberg further discloses sending a second

session registration for the first endpoint to the registration server, the second

session registration comprising a network address for the first endpoint that is

non-routable (Page 19, Lines 18-20).

34.   With regard to claim 23, in accordance with the interpretation set forth in

the 35 U.S.C. 112, second paragraph, rejection of claim 23, Goldberg further

discloses that the registration server receives session registrations from both the

first and second endpoints. The server first determines which endpoints are located behind a NAT (Page 19, Liens 12-20). While Goldberg fails to specifically disclose that the devices are registered, this limitation is inherent, because the server provides the appropriate addressing information to each endpoint when assisting with the connection setup (Page 20, Lines 2-30).

35.   With regard to claim 24, Goldberg further discloses that the registration server is configured to identify the non-routable network address within the second session registration, and responsive to said identifying, registering the first endpoint with respect to a routable address associated with the network translation device (Page 19, Lines 14-20).

36.   Claims 11-13,15, and 18-19 are rejected for the same reasons cited for claims 1-3,5, and 8-9, respectively. The limitations set forth in the body of the claims are identical to the limitations set forth for claims 1-3,5, and 8-9. The further limitations set forth in the preamble are inherent.

37.   Claims 25-27 and 28-30 are rejected for the same reasons cited for claims 21-23, respectively. The limitations set forth in the body of the claims are identical to the limitations set forth for claims 21-23. The further limitations set forth in the preamble are inherent.

Claim Rejections - 35 USC § 103

38.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to

be patented and the prior art are such that the subject matter as a whole would have been
obvious at the time the invention was made to a person having ordinary skill in the art to which
said subject matter pertains. Patentability shall not be negatived by the manner in which the
invention was made.

39.   Claims 4 and 14 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Goldberg et al. (WO 02/03217) in view of Network Safety.

40.   With regard to claims 4 and 14, while the system disclosed by Goldberg

shows substantial features of the claimed invention (discussed above), it fails to

disclose the network address translation device: receiving the session setup for

the session to the second machine; sending the session setup to the second

network address; recording said sending in an access authorization table;

receiving data from a network; and comparing said received data with at least a

portion of the access authorization table the entry to determine if said received

data is responsive to said sending.

Network Safety teach a method of providing enhanced network security in

a NAT by only forwarding incoming messages which exactly match a connection.

By recording all outgoing sessions, the responses to those sessions can be

forwarded to the appropriate machines inside the Nat, while other traffic can be

dropped. This helps to prevent unauthorized access to machines inside the NAT,

increasing the security of the network.

Therefore, it would have been obvious to one of ordinary skill in the art at

the time the invention was made to record outgoing connections in an access

table within the NAT, and check incoming messages to see if they match entries

in the table. This allows unauthorized traffic to be prevented from entering the

network, increasing security.

Conclusion

41.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

42.   If a copy of a provisional application listed on the bottom portion of the accompanying Notice of References Cited (PTO-892) form is not included with this Office action and the PTO-892 has been annotated to indicate that the copy was not readily available, it is because the copy could not be readily obtained when the Office action was mailed. Should applicant desire a copy of such a provisional application, applicant should promptly request the copy from the Office of Public Records (OPR) in accordance with 37 CFR 1.14(a)(1)(iv), paying the required fee under 37 CFR 1.19(b)(1). If a copy is ordered from OPR, the shortened statutory period for reply to this Office action will not be reset under MPEP § 710.06 unless applicant can demonstrate a substantial delay by the Office in fulfilling the order for the copy of the provisional application. Where the applicant has been notified on the PTO-892 that a copy of the provisional application is not readily available, the provision of MPEP § 707.05(a) that a copy of the cited reference will be automatically furnished without charge does not apply.

43.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron Strange whose telephone number is 703-305-8878. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the

examiner's supervisor, Glen Burgess can be reached on 703-305-4792. The fax

phone number for the organization where this application or proceeding is

assigned is 703-872-9306.

Information regarding the status of an application may be obtained from

the Patent Application Information Retrieval (PAIR) system. Status information

for published applications may be obtained from either Private PAIR or Public

PAIR. Status information for unpublished applications is available through

Private PAIR only. For more information about the PAIR system, see http://pair-

direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-

free).

ANS 7/21/2004

Bradley Edelman
A.U. 2153